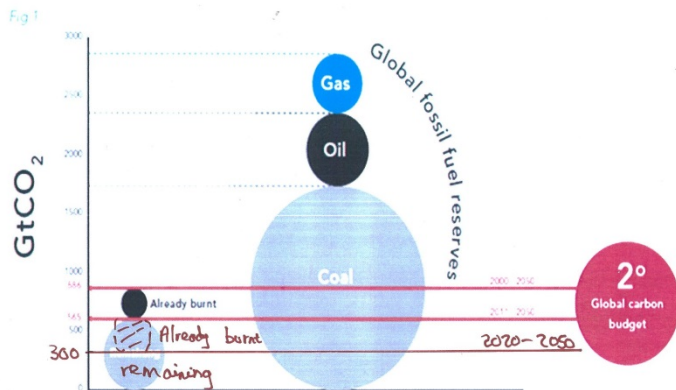


Limiting climate change

Aim to reduce carbon emission to zero by 2050 as this is a statutory requirement as per the UK Climate Change Act. While this might seem ambitious, Reading aims to do this by 2030.

Comparison of the global 2°C carbon budget with fossil fuel reserves CO₂ emissions potential



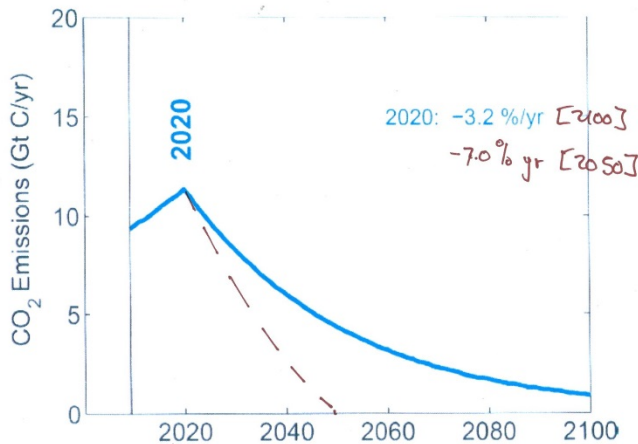
Carbon reduction strategies

There is an upper limit to the global carbon budget if the average global temperature rise is to be limited to 2°C or less. It requires much of the remaining fossil fuel reserves to be left in the ground (Figure 1).

We will by 2020 have already used up some 70% of the global carbon budget of 886 Gt CO₂ leaving a remaining amount of ca 300 Gt CO₂ to be consumed.

Figure 1 Global carbon budget to limit average global temperature rise to 2°C

IPCC 5, carbon reduction strategies



As the IPCC has noted, this consumption will require the post peak carbon emissions to decrease by 7% from 2021 each and every year up to 2050 if this upper carbon limit is not to be exceeded (Figure 2).

Figure 2 Carbon reduction strategies (IPCC)

Carbon footprint

The average carbon footprint per person is illustrated in Figure 3.

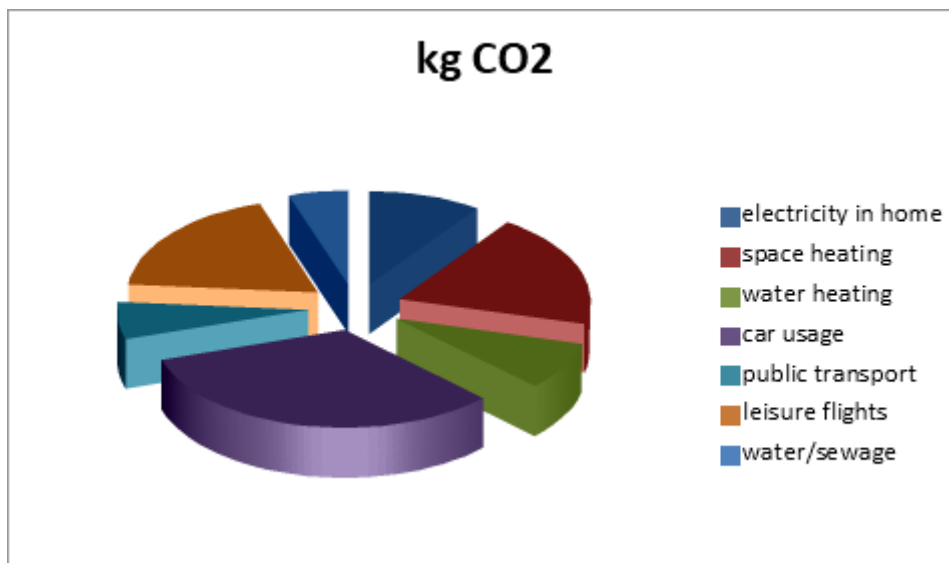


Figure 3 Average carbon footprint per person

In each of these usages other than leisure flights, the neighbourhood plan will have to ensure that it does *not add* any additional carbon emissions to the environment. Moreover to accommodate any extra development, it will be necessary to *reduce* existing emissions from these sectors which will require mitigation as well as adaptation strategies.

Possible adaptation strategies

Energy usage	Possible adaptation
Electricity in the home	Encourage uptake/promote usage of more efficient appliances
Space and water heating	Increase efficiency of existing systems by restoring thermal efficiency using inhibitors
Car usage	Facilitate non car modes by increasing provision of cycle paths and pavement
Public transport	Increased provision must ensure that car usage is decreased

Possible mitigation strategies

Possible strategies include –

- Increasing biodiversity
- Planting more trees

5 Environmental design of buildings

Aim to encourage development and retrofit of more environmentally friendly buildings

The occupation and use of buildings comprises one sixth of the UK energy usage and carbon emissions. For new build it is important that any additional buildings add as small a burden to the environment as possible and for existing build it will be necessary to reduce carbon emissions in order to balance extra build.

New build

Cost effective design criteria that should be applied to new build should therefore include -

- Low energy to meet Code for Sustainable Homes, level 5
- Orientation such that photovoltaic and/or solar thermal panels can be roof mounted
- Incorporation of passive solar measures to reduce solar gain during summer to reduce need for air conditioning
- 'Future proof' so that these buildings can be connected to low carbon energy networks at any future time which will require
 - radiators sized for central heating water temperature of 50 C
 - boilers located so that heating system can be easily connected to district energy networks
 - hot water storage tank with a double coil hot water cylinder rather than a combi boiler
- Minimum 10% of energy to be generated from renewable energy sources
- Additions to existing buildings which require planning permission should have to meet the same set of criteria as new build

Existing buildings

- Profile existing housing stock in terms of heat loss
- Develop strategy for retrofitting insulation
- List qualified installers
- Create community fund to provide low interest loans

Action: Discuss proposals with Hart Council planners; ensure conformity to Hart local plan

Consult British Geological Survey about shallow geological strata underlieing Yateley and its suitability for extracting geothermal heat

Identify sources of low interest finance or propose to Government to provide a feed in tariff for negawatts (units of energy saving).

14 Cycling and walking

Aim to increase mobility and reduce car usage through provision of cycle lanes and pavement upgrades

A quarter of journeys are less than one kilometer so walking and cycling should be encouraged as these are more socially and environmentally friendly, will reduce car usage and make non car modes safer. This is necessary to accommodate new developments in and around Yateley.

The principal groups of users are students going to and from school, persons going to shops and families using recreational areas

Schools	Proposal foot paths/cycle paths
Yateley/Westfields	Provide crossing point, Monteagle Lane Provide gate entry to schools, Monteagle Lane, which can be time limited to encourage more students to walk/cycle to school
Newlands	-
Cranford Park	-
Yateley Manor	Would benefit from widening of existing footpath along Reading Road from War Memorial to school
Frogmore Community	Widen footpath along Reading Road from Community School to Green Lane and provide cycle lane to encourage more students to walk/cycle to school
Frogmore	-

shops	
Reading Road, Yateley	Widen footpath along Reading Road so can also be used by cyclists between War Memorial and the Parade
Darby Green	-
New developments	Install footpath/cycle lane Moulsham Lane and Vicarage Road to service Urnfield site Install footpath/cycle lane Firgrove Road if new housing development proceeds
Green areas	
Yateley Green	-
Frogmore Green	-
Yateley Common	-
Blackwater Lakes Country Park	Install footpath/cycle lane along Mill Lane from junction with Chandlers Lane to Blackwater Lakes to facilitate access to proposed Country Park development

Action: Consult Schools and shop keepers

Discuss with Hart planners about requirements for new developments